

# **WASHINGTON STATE BUILDING CODE**

**CHAPTER 51-50 WAC  
Second Edition**

**Insert Pages for the First Edition**

**INTERNATIONAL BUILDING CODE  
2003 Edition**



**Washington State Building Code Council**

**Effective July 1, 2005**

Copies of the State Building Codes and  
complete copies of the 2003 International Building Code  
as published by the International Code Council  
may be obtained from:

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## Preface

**Authority:** The International Building Code (Chapter 51-50 WAC) is adopted by the Washington State Building Code Council pursuant to Chapters 19.27 and 70.92 RCW. These codes were first adopted by reference by the Washington State Legislature in 1974. In 1985, the Legislature delegated the responsibility of adoption and amendment of these codes to the State Building Code Council.

**Code Precedence:** The State Building Code Act, Chapter 19.27 RCW, establishes the following order of precedence among the documents adopted as parts of the State Building Code:

- International Building Code, Standards and amendments -WAC 51-50;
- International Residential Code, Standards and amendments – WAC 51-51;
- International Mechanical Code, Standards and amendments - WAC 51-52;
- International Fire Code, Standards and amendments - WAC 51-54;
- Uniform Plumbing Code, Standards and amendments - WAC 51-56, 51-57.

Where there is a conflict between codes, an earlier named code takes precedence over a later named code. In the case of conflict between the duct insulation requirements of the International Mechanical Code and the duct insulation requirements of the Energy Code, the Energy Code, or where applicable, a local jurisdiction's energy code, shall govern.

Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

**Organization and Numbering:** These rules are written to allow compatible use with the International Building Code. All sections which are amended, deleted, or added are referenced.

**Enforcement:** The State Building Code Act requires that each local jurisdiction enforce the State Building Code within its jurisdiction. Any jurisdiction can contract with another jurisdiction or an inspection agency to provide the mandated enforcement activities.

### **Amendments to the State Building Code:**

The State Building Code Council has adopted review procedures and approval criteria for local amendments. These procedures and criteria are found in Chapter 51-04 WAC. The Council has exempted from its review any amendments to the administrative provisions of the various codes.

Forms for proposing statewide amendments to the State Building Code are available from the State Building Code Council staff.

- A. **Amendments of Statewide Application:** On a yearly basis the State Building Code Council will consider proposals to amend the State Building Code. Unless directed by the State Legislature, federal mandates or court order, the Council will not enter formal rulemaking until 2006 as part of its consideration of adoption of the 2006 series of codes.

Proposals to amend the State Building Code shall be made on forms provided by the Building Code Council.

Code Change Proposal Submittal Deadline: March 1st of each year.

- B. **Local Amendments:** Any jurisdiction may amend the State Building Code provided the amendments do not reduce the minimum performance standards of the codes. There are two areas where local amendments are limited or prohibited:

**Prohibited Amendments:** Residential provisions of the State Energy Code (WAC 51-11), the Ventilation and Indoor Air Quality Code (WAC 51-13); any provision of the International Building Code or International Residential Code affecting accessibility; and standards specifically adopted in Chapters 19.27 and 19.27A cannot be amended by any local jurisdiction.

**Residential Amendments:** Amendments by local jurisdictions which affect the construction of single family and multi-family residential buildings must be reviewed and approved by the State Building Code Council before such amendments can be enforced. The State Building Code Act provides the following definition:

**Multi-family residential building:** means common wall residential buildings that consist of four or fewer units, that do not exceed two stories in height, that are less than 5,000 square feet in area, and that have a one-hour fire-resistive occupancy separation between units.

Application forms for Council review of local amendments are available from the State Building Code Council Staff.

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**Printing Format:** This version of the rules is published as a series of insert or replacement pages. Each page provides instructions for installing them in the model code book. Amendments to the model code which are new or revised from the previous edition of this code are indicated by a line in the margin next to the revised portions.

**Effective Date:** These rules were adopted by the State Building Code Council on November 12, 2004 and June 10, 1005. The rules are effective throughout the state on July 1, 2005. (This version of the code is based on WAC 51-50 as published in WSR 05-01-014 and 05-13-144. It is subject to review by the State Legislature during the 2005 session.)

**Building Permit Fees:** The activities of the State Building Code Council are supported by permit fees collected by each city and county. Section 19.27.085 of the State Building Code Act requires that a fee of \$4.50 be imposed on each building permit issued by each city and county. In addition, a fee of \$2.00 per unit shall be imposed for each dwelling unit after the first unit, on each building containing more than one residential unit. For the purpose of this fee, WAC 365-110-035 defines building permits as any permit to construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure regulated by the Building Code. Exempt from the fee are plumbing, electrical, mechanical permits, permits issued to install a mobile/manufactured home, commercial coach or factory built structure, or permits issued pursuant to the International Fire Code.

Each city and county shall remit moneys collected to the state treasury quarterly. No remittance is required until a minimum of \$50.00 has accumulated.

These permit fees are the amounts current in January 2005. Such fees may be changed by the State Legislature.

**Opinions:** Only at the request of local enforcement official, the State Building Code Council may issue interpretations/opinions of those provisions of the State Building Code created by the Council, or provisions of the model codes amended by the Council. Final interpretation authority for any specific permit resides with the local enforcement official.

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**CHAPTER 51-50 WAC  
STATE BUILDING CODE ADOPTION AND AMENDMENT  
OF THE 2003 EDITION OF THE INTERNATIONAL BUILDING CODE**

**WAC 51-50-001 AUTHORITY**

These rules are adopted under the authority of Chapter 19.27 RCW.

**WAC 51-50-002 PURPOSE**

The purpose of these rules is to implement the provisions of Chapter 19.27 RCW, which provides that the State Building Code Council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the Council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the Council.

**WAC 51-50-003 INTERNATIONAL BUILDING CODE**

The 2003 edition of the International Building Code, including Appendix E, published by the International Code Council is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code.

**WAC 51-50-004 CONFLICTS WITH WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODE**

In the case of conflict between the ventilation requirements of Chapter 12 of this code and the ventilation requirements of Chapter 51-13 WAC, the provisions of the Ventilation and Indoor Air Quality Code shall govern.

**WAC 51-50-005 INTERNATIONAL BUILDING CODE REQUIREMENTS FOR BARRIER-FREE ACCESSIBILITY**

Chapter 11 and other International Building Code requirements for barrier-free access, including ICC A117.1-2003 and Appendix E, are adopted pursuant to Chapters 70.92 and 19.27 RCW.

Pursuant to RCW 19.27.040, Chapter 11 and requirements affecting barrier-free access shall not be amended by local governments.

**WAC 51-50-007 EXCEPTIONS**

The exceptions and amendments to the International Building Code contained in the provisions of Chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

Codes referenced which are not adopted through RCW 19.27.031 or RCW 19.27A shall not apply unless specifically adopted by the authority having jurisdiction.

**WAC 51-50-008 IMPLEMENTATION**

The International Building Code adopted under Chapter 51-50 WAC shall become effective in all counties and cities of this state on July 1, 2004.

**WAC 51-50-009 RECYCLABLE MATERIALS AND SOLID WASTE STORAGE**

For the purposes of this section, the following definition shall apply:

**RECYCLED MATERIALS** means those solid wastes that are separated for recycling or reuse, such as papers, metals and glass.

All local jurisdictions shall require that space be provided for the storage of recycled materials and solid waste for all new buildings

**Exceptions:** Group R-3 and Group U Occupancies.

The storage area shall be designed to meet the needs of the occupancy, efficiency of pickup, and shall be available to occupants and haulers.







**407.8 Locks on exit doors.** Approved, listed locks without delayed egress shall be permitted in nursing homes or portions of nursing homes, provided that:

1. The clinical needs of one or more patients require specialized security measures for their safety.
2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.
5. There is a system, such as a keypad and code, in place to inform visitors, staff persons and appropriate residents how they can exit. Instructions for exiting shall be posted within six feet of the door.



**1101.2 Design.** Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1, except those portions of ICC A117.1 amended by this section.

**1101.2.1 (ICC A117.1 Section 403) Landings for walking surfaces.** The maximum rise for any run is 30 inches (762 mm). Landings shall be provided at the top and bottom of any run. Landings shall be level and have a minimum dimension measured in the direction of travel of not less than 60 inches (1525 mm).

**1101.2.2 (ICC A117.1 Section 403.5) Clear width of accessible route.** Clear width of an accessible route shall comply with ICC A117.1 Table 403.5. For exterior routes of travel, the minimum clear width shall be 44 inches (1118 mm).

**1101.2.3 (ICC A117.1 Section 404.2.9) Door-Opening Force.** Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The maximum force for pushing open or pulling open doors other than fire doors shall be as follows:

- Interior hinged door: 5.0 pounds (22.2 N)
- Sliding or folding doors 5.0 pounds (22.2 N)

At exterior doors where environmental conditions require a closing pressure greater than 8.5 pounds (37.8 N), power operated doors shall be used within the accessible route of travel.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

**1101.2.4 Reserved.**

**1101.2.5 (ICC A117.1 Sections 603.4 and 604.11) Coat hooks, shelves, dispensers, and other fixtures.** Coat hooks provided shall accommodate a forward reach or side reach complying with ICC A117.1 Section 308. Where provided, shelves shall be installed so that the top of the shelf is 40 inches (1015 mm) maximum above the floor or ground. Drying equipment, towel or other dispensers, and disposal fixtures shall be located 40 inches maximum above the floor or ground to any rack, operating controls, receptacle or dispenser.

**1101.2.6 (ICC A117.1 Section 604.6) Flush controls.** Hand operated flush controls for water closets shall be mounted not more than 44 inches (1118 mm) above the floor.

**1101.2.7 Reserved.**

**1101.2.8 Reserved.**

**1101.2.9 (ICC A117.1 Section 703.6.3.1) International symbol of accessibility.** Where the International Symbol of Accessibility is required, it shall be proportioned complying with ICC A117.1 Figure 703.7.2.1. All interior and exterior signs depicting the International Symbol of Accessibility shall be white on a blue background.

**1101.2.10 Reserved.**

**1101.2.11 (ICC A117.1 Section 404.3.5) Control switches.** Control switches shall be mounted 32 to 40 inches (815 to 1015 mm) above the floor and not less than 18 inches (455 mm) nor more than 36 inches (915 mm) horizontally from the nearest point of travel of the moving doors.

**1109.5 Drinking fountains.** On floors where drinking fountains are provided, at least 50 percent, but not less than one fountain, shall be accessible. At least one fountain shall be mounted at a standard height.

**1109.6 Elevators.** Passenger elevators on an accessible route shall be accessible and comply with ICC A117.1. Elevators required to be accessible shall be designed and constructed to comply with Chapter 296-96 of the Washington Administrative Code.

(Insert Facing Page 234)

**1109.9 Detectable warnings.** Passenger transit platform edges bordering a drop-off and not protected by platform screens or guards shall have a detectable warning. Curb ramps shall have detectable warnings.

**Exception:** Detectable warnings are not required at bus stops.

**1203.4 Natural ventilation.** For other than Group R occupancies in buildings four stories and less, natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants. Group R occupancies in buildings four stories and less shall comply with the Washington State Ventilation and Indoor Air Quality Code.

## **1204.2 Heating.**

**1204.2.1 Definitions.** For the purposes of this section only, the following definitions apply.

**DESIGNATED AREAS** are those areas designated by a county to be an urban growth area in Chapter 36.70A RCW and those areas designated by the US Environmental Protection Agency as being in nonattainment for particulate matter.

**SUBSTANTIALLY REMODELED** means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12 month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in kind, based on current replacement costs.

**1204.2.2 Primary Heating Source.** Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

**1204.2.3 Solid Fuel Burning Devices.** No used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or a pellet stove either certified or exempt from certification by the United States Environmental Protection Agency.

**Exception:** Antique wood cook stoves and heaters manufactured prior to 1940.

**1208.2 Minimum ceiling heights.** Occupiable spaces, habitable spaces shall have a ceiling height of not less than 7 feet 6 inches (2286 mm). Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet (2134 mm). ⇐

**Exceptions:**

1. In one- and two-family dwellings, beams or girders spaced not less than 4 feet (1219 mm) on center and projecting not more than 6 inches (152 mm) below the required ceiling height.
2. If any room in a building has a sloped ceiling, the prescribed ceiling height for the room is required in one-half the area thereof. Any portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the ceiling shall not be included in any computation of the minimum area thereof.
3. Mezzanines constructed in accordance with Section 505.1
4. Residential Group R Occupancies shall be permitted to have a ceiling height of not less than 7 feet (2134 mm).

**1208.3 Room area.** Every dwelling unit shall have at least one room that shall have not less than 120 square feet (13.9 m<sup>2</sup>) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m<sup>2</sup>).

**Exception:** Every kitchen in a one- and two-family dwelling shall have not less than 50 square feet (4.64 m<sup>2</sup>) of gross floor area.

Portions of a room with a sloped ceiling measuring less than 5 feet (1524 mm) or a flat ceiling measuring less than 7 feet (2134 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum habitable area for that room.



**1210.5 Toilet rooms.** This section is not adopted. (The requirements of this section have been moved to Section 2902.2.1.1)

**(Insert Facing Page 242)**





**1405.5.2 Seismic requirements.** Anchored masonry veneer located in Seismic Design Category C, D, E, or F shall conform to the requirements of Section 6.2.2.10, except Section 6.2.2.10.2.2, of the ACI 530/ASCE 5/TMS 402. **I**



**1605.3.1.1 Load reduction.** It is permitted to multiply the combined effect of two or more variable loads by 0.75 and add to the effect of dead load. The combined load used in design shall not be less than the sum of the effects of dead load and any one of the variable loads.

Increases in allowable stresses specified in the appropriate materials section of this code or referenced standard shall not be used with the load combinations of Section 1605.3.1 except that a duration of load increase shall be permitted in accordance with Chapter 23.

←

**2107.2.3 ACE 530/ASCE 5/TMS 402, Section 2.1.10.6.1.1, lap splices.** In regions of moment where the design tensile stresses in the reinforcement are greater than 80 percent of the allowable steel stress  $F_s$ , the lap length determined by Equation (2.9) shall be increased by 50 percent.

**(Insert Facing Page 418)**

**2108.2 ACI 530/ASCE 5/TMS 402, Section 3.1.6.** Modify Section 3.1.6 as follows:

**3.1.6 Headed and bent-bar anchor bolts.** All embedded bolts shall be grouted in place, except that 1/4 inch (6.4 mm) diameter bolts are permitted to be placed in bed joints that are at least 1/2 inch (12.7 mm) in thickness.

(Existing Section 2108.2 and remaining sections are renumbered)

**(Insert Facing Page 419)**



**2406.1.2 Wired glass.** This section is not adopted.

1

(Insert Facing Page 524)



## Chapter 29 - PLUMBING SYSTEMS

(This chapter replaces IBC Chapter 29 in its entirety)

### SECTION 2901 PLUMBING CODE

Plumbing systems shall comply with the Plumbing Code.

### SECTION 2902 GENERAL

#### 2902.1 Number of fixtures.

**2902.1.1 Requirements.** Plumbing fixtures shall be provided in the minimum number shown in Table 2902.1 and in this Chapter. Where the proposed occupancy is not listed in Table 2902.1, the building official shall determine fixture requirements based on the occupancy which most nearly resembles the intended occupancy.

Plumbing fixtures need not be provided for unoccupied buildings or facilities.

**2902.1.2 Private offices.** Fixtures only accessible to private offices shall not be counted to determine compliance with this section.

**2902.1.3 Occupancy load distribution.** The occupant load shall be divided equally between the sexes, unless data approved by the building official indicates a different distribution of the sexes.

**2902.1.4 Food preparation areas.** In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.

**2902.1.5 Other requirements.** For other requirements for plumbing facilities, see Sections 419.15, 1210 and Chapter 11.

#### 2902.2 Access to fixtures.

**2902.2.1 Location.** Plumbing fixtures shall be located in each building or conveniently in a building adjacent thereto on the same property.

**2902.2.1.1 Toilet rooms.** Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

**2902.2.2 Multiple tenants.** Access to toilets serving multiple tenants shall be through a common use area and not through an area controlled by a tenant.

**2902.2.3 Multistory buildings.** Required fixtures shall not be located more than one vertical story above or below the area served.

#### 2902.3 Separate facilities.

**2902.3.1 Requirements.** Separate toilet facilities shall be provided for each sex.

**Exception:** In occupancies serving 15 or fewer persons, one toilet facility designed for use by no more than one person at a time shall be permitted for use by both sexes.

**2902.3.2 Food service establishments.** When customers and employees share the same facilities, customers accessing the facilities are excluded from food preparation and storage areas.

**2902.4 Pay facilities.** Required facilities shall be free of charge. Where pay facilities are installed, they shall be in addition to the minimum required facilities.

**2902.5** is not adopted.

**2902.6** is not adopted.

### SECTION 2903 SPECIAL PROVISIONS

**2903.1 Dwelling units.** Dwelling units shall be provided with a kitchen sink.

**2903.2 Water closet space requirements.** The water closet stool in all occupancies shall be located in a clear space not less than 30 inches (762 mm) in width, with a clear space in front of the stool of not less than 24 inches (610 mm).

**2903.3 Water.** Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

#### 2903.4 Drinking fountains.

**2903.4.1 Number.** Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.

##### Exceptions:

1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants.
2. A drinking fountain need not be provided in a drinking or dining establishment.

**2903.4.2 Multistory buildings.** Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.

**2903.4.3 Penal Institutions.** Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.

**2903.4.4 Location.** Drinking fountains shall not be located in toilet rooms.

**TABLE 2902.1 – MINIMUM PLUMBING FIXTURES 1,2,4,6**

TYPE OF BUILDING OR OCCUPANCY <sup>8</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For the occupancies listed below, use 30 square feet (2.79 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group A</b> Assembly Places -- Conference rooms, dining rooms, drinking establishments, exhibit rooms, gymnasiums, lounges, stages and similar uses including restaurants classified as Group B Occupancies	1:1-25 2:26-75 3:76-125 4:126-200 5:201-300 6:301-400 Over 400, add one fixture for each additional 200 males or 150 females.	1:1-25 2:26-75 3:76-125 4:126-200 5:201-300 6:301-400	one per 2 water closets		
For the assembly occupancies listed below, use the number of fixed seating or, where no fixed seating is provided, use 15 square feet (1.39 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
Assembly places -- Theaters, auditoriums, convention halls, dance floors, lodge rooms, casinos, and such places which have limited time for fixture use (intermissions)	1:1-100 2:101-200 3:201-400 Over 400, add one fixture for each additional 250 males or 50 females.	One per 25 up to 400	1:1-200 2:201-400 3:401-750 Over 750, add one fixture for each additional 500 persons.	1:1-200 2:201-400 3:401-750	
Assembly places -- Stadiums, arena and other sporting facilities where fixture use is not limited to intermissions.	1:1-100 2:101-200 3:201-400 Over 400, add one fixture for each additional 300 males or 100 females.	One per 50 up to 400	1:1-200 2:201-400 3:401-750 Over 750, add one fixture for each additional 500 persons.	1:1-200 2:201-400 3:401-750	
For the assembly occupancies listed below, use the number of fixed seating or, where no fixed seating is provided, use 30 square feet (2.79 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
Worship places Principal assembly area Educational & activity unit	one per 150 one per 125	one per 75 one per 75	one per 2 water closets one per 2 water closets		
For the occupancies listed below, use 200 square feet (18.58 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures					
<b>Group B</b> and other clerical or administrative employee accessory use	1:1-15 2:16-35 3:36-55 Over 55, add one for each additional 50 persons.	1:1-15 2:16-35 3:36-55	one per 2 water closets		
For the occupancies listed below, use 100 square feet ( 9.3 m <sup>2</sup> ) per student for the minimum number of plumbing fixtures.					
<b>Group E</b> Schools -- for staff use All schools (One staff per 20 students)  Schools -- for student use Day care  Elementary Secondary	1:1-15 2:16-35 3:36-55 Over 55, add one fixture for each additional 40 persons.  1:1-20 2:21-50 Over 50, add one fixture for each additional 50 persons.  one per 30 one per 40	1:1-15 2:16-35 3:36-55  1:1-20 2:21-50  one per 25 one per 30	one per two water closets    1:1-20 2:21-50 Over 50, add one fixture for each additional 50 persons.  one per two water closets one per two water closets		

**TABLE 2902.1 – MINIMUM PLUMBING FIXTURES 1,2,4,6**  
(Continued)

TYPE OF BUILDING OR OCCUPANCY <sup>8</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For the occupancies listed below, use 50 square feet (4.65 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Education Facilities other than Group E</b> Others (colleges, universities, adult centers, etc.)	one per 40	one per 25	one per two water closets		
For the occupancies listed below, use 2,000 square feet (185.8 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group F and Group H</b> Workshop, foundries and similar establishments, and hazardous occupancies	1:1-10 2:11-25 3:26-50 4:51-75 5:76-100 Over 100, add one fixture for each additional 30 persons.	1:1-10 2:11-25 3:26-50 4:51-75 5:76-100	one per two water closets		one shower for each 15 persons exposed to excessive heat or to skin contamination with irritating materials
For the occupancies listed below, use the designated application and 200 square feet (18.58 m <sup>2</sup> ) per occupant of the general use area for the minimum number of plumbing fixtures.					
<b>Group I</b> <sup>7</sup> Hospital waiting rooms  Hospital general use areas	one per room (usable by either sex)  1:1-15 2:16-35 3:36-55 Over 55, add one fixture for each additional 40 persons.	1:1-15 3:16-35 4:36-55	one per room  one per two water closets		
<b>Hospital patient rooms:</b> Single Bed  Isolation  Multi-Bed Long-term	one adjacent to and directly accessible from  one adjacent to and directly accessible from  one per four patients one per four patients		one per toilet room  one per toilet room  one per four patients one per four patients		one per toilet room  one per toilet room  one per eight patients one per 15 patients
<b>Jails and reformatories</b> Cell Exercise room	one per cell one per exercise room		one per cell one per exercise room		
<b>Other institutions</b> (on each occupied floor)	one per 25	one per 25	one per two water closets		one per eight
<b>Group LC</b>	For Group LC Occupancies, the minimum number of plumbing fixtures is specified in Section 419.				
For the occupancies listed below, use 200 square feet (18.58 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group M</b> Retail or wholesale stores	1:1-50 2:51-100 3:101-400  Over 400, add one fixture for each additional 300 males or 150 females.	1:1-50 2:51-100 3:101-200 4:201-300 5:301-400	one per two water closets		

**TABLE 2902.1 – MINIMUM PLUMBING FIXTURES <sup>1,2,4,6</sup>**  
(Continued)

TYPE OF BUILDING OR OCCUPANCY <sup>8</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For Group R Occupancies containing dwelling units or guest rooms, use the table below. For dormitories, use 200 square feet (27.87 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group R</b> Dwelling units Hotel, Motel, and Boarding house guest rooms	one per dwelling unit one per guest room		one per dwelling unit one per guest room		one per dwelling unit one per guest room
Dormitories	one per 10 Over 10, add one fixture for each additional 25 males and over 8, add one for each additional 20 females.	one per 8 Over 8, add one for each additional 20 females.	one per 12 over 12, add one fixture for each additional 20 males and one for each additional 15 females.	one per 12 over 12, add one fixture for each additional 20 males and one for each additional 15 females.	one per eight For females, add one additional unit per each additional 30. Over 150 persons, add one additional unit per each additional 20 persons.
For the occupancies listed below, use 5,000 square feet (464.5 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group S</b> Warehouses	1:1-10 2:11-25 3:26-50 4:51-75 5:76-100 Over 100, add one for each 30 persons.	1:1-10 2:11-25 3:26-50 4:51-75 5:76-100 Over 100, add one for each 30 persons.	One per 40 occupants of each sex.		one shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating materials.

<sup>1</sup>The figures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction thereof.

<sup>2</sup>For occupancies not shown, see Section 2902.1.1.

<sup>3</sup>Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25%) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.

<sup>4</sup>For drinking fountains, see Section 2903.4.

<sup>5</sup>Twenty-four inches (610 mm) of wash sink or 18 inches (457 mm) of a circular basin, when provided with water outlets for such space, shall be considered equivalent to one lavatory.

<sup>6</sup>For when a facility may be usable by either sex, see Section 2902.3.1.

<sup>7</sup>See WAC 246-320 for definitions, other fixtures and equipment for hospitals.

<sup>8</sup>When a space is accessory to or included as a part of a different occupancy group per Chapter 3, the area per occupant for the minimum plumbing fixture number is to be determined by its own specific use or purpose, not by that of the building's occupancy group.